

## **REMARKS**

Applicants respectfully request reconsideration of the present application. No new matter has been added to the present application. Claims 1-6, 8-26, 28-46, and 48-60 have been rejected in the Office action. Claims 1, 8, 20, 21, 28, 35, 38-41, and 60 have been amended, no new claims have been added, and claims 34, 48, and 50 have been canceled in this Amendment. Accordingly, claims 1-6, 8-26, 28-33, 35-46, 49, and 51-60 are pending herein. Claims 1-6, 8-26, 28-33, 35-46, 49, and 51-60 are believed to be in condition for allowance and such favorable action is respectfully requested.

### **Rejections based on 35 U.S.C. § 103**

#### A. Applicable Authority

Title 35 U.S.C. § 103(a) declares, a patent shall not issue when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” The Supreme Court in *Graham v. John Deere* counseled that an obviousness determination is made by identifying: the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and prior art references; and secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

To support a finding of obviousness, the initial burden is on the Office to apply the framework outlined in *Graham* and to provide some reason, or suggestions or motivations found either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the prior art reference or to combine prior art reference teachings to produce the claimed invention. See, *Application of Bergel*, 292 F. 2d 955, 956-957

(1961). Thus, in order “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success [in combining the references]. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” See MPEP § 2143. Recently, the Supreme Court elaborated, at pages 13-14 of *KSR*, it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application].” *KSR v. Teleflex*, 127 S. Ct. 1727 (2007).

B. Rejections based on Binsted

Claims 1-6, 8-9, 11-16, 20-26, 28, 29, 31-36, 40-46, 48, 49, 51-56, and 60 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim Binsted et al., “Generating Personalised Patient Information using the Medical Record,” 1995. (the “Binsted reference”). Applicants respectfully traverse the obviousness rejections for claims 1-6, 8-9, 11-16, 20-26, 28, 29, 31-33, 35, 36, 40-46, 49, 51-56, and 60. In particular, the Binsted reference fails to teach or suggest all the claim limitations for each of claims 11-6, 8-9, 11-16, 20-26, 28, 29, 31-33, 35, 36, 40-46, 49, 51-56, and 60, as amended herein. Additionally, there is no apparent reason why one of ordinary skill in the art would have modified Binsted to achieve the claimed invention. Accordingly, Applicants respectfully traverse this rejection, as hereinafter set forth.

Referring initially to independent claim 1, Applicants previously indicated that the claim includes a feature directed to a threshold determination of whether the system will automatically interpret the medical test result or if the result will be manually interpreted by a clinician (i.e., no automatic interpretation by the system) and that this feature is not taught or suggested by the Binsted reference. In response to Applicants' arguments, the Office Action indicates that the claim language is not limited to an interpretation as set forth in Applicants' remarks. Accordingly, the Office has used an alternative interpretation of claim 1 in rejecting the claim in view of the Binsted reference.

Based on the Office Action's response to Applicants' arguments, claim 1 has been amended herein to more clearly recite the above-noted feature. In particular, claim 1 has been amended to recite: "prior to interpreting the medical test result to provide a plain language explanation for the medical test result, making a threshold determination whether the medical test result will initially be automatically interpreted by the computer system independent of clinician input or the medical test result will be interpreted using clinician input without an initial automatic interpretation by the computer system."

In contrast to the invention of claim 1, the Binsted reference discusses a system that automatically generates explanations of items in patient records and allows medical personnel to review the automatically generated explanations. *See, e.g., Binsted*, p. 29 and 30. The Binsted reference, however, fails to teach or suggest the above-noted feature of claim 1. The Binsted reference merely includes a discussion of allowing medical personnel to review generated explanations. In particular, the portion of the Binsted reference cited by the Office Action indicates: "It is essential that a medical expert be able to check through the generated explanations – that is, the explanations must not vary in unpredictable ways. The system must

not ‘put words in the doctor’s mouth’ by adding information to the record, either explicitly or implicitly.” *Binsted*, p. 30. This cited portion of the Binsted reference merely indicates that medical personnel can review an explanation after the system has automatically generated the explanation. However, allowing medical personnel to review a system-generated explanation does not correspond with or even suggest “prior to interpreting the medical test result to provide a plain language explanation for the medical test result, making a threshold determination whether the medical test result will initially be automatically interpreted by the computer system independent of clinician input or the medical test result will be interpreted using clinician input without an initial automatic interpretation by the computer system” as recited in claim 1. The cited portion of the Binsted reference refers to medical personnel review after the system has automatically generated an explanation, whereas the recitation in claim 1 is directed to a threshold determination of whether the system will even automatically interpret the medical test result or if the result will be manually interpreted by a clinician (i.e., no automatic interpretation by the system).

In view of the above, it is respectfully submitted that the Binsted reference fails to teach or suggest all the limitations of independent claim 1. Additionally, there is no apparent reason why one of ordinary skill in the art would have modified Binsted to achieve the invention of claim 1. As such, independent claim 1 is patentable over the Binsted reference, and Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of independent claim 1.

Referring now to independent claim 21, the claim has been amended herein to recite features directed to determining whether a medical test result is a normal test result appropriate for automated delivery to a patient using the computer system or an abnormal test

result inappropriate for automated delivery to a patient using the computer system. As noted in the Specification of the present application, in some cases, it may be inappropriate to have an automated delivery system provide a patient with results, such as results indicating a critical illness. *See, e.g., Specification*, p. 3, lines, 4-5; p. 17, lines 2-4; p. 20, lines 6-10. Instead, these results should be provided to the patient in a conventional manner, such as a physician discussing the results with the patient. *Id.* In claim 21, if the medical test result is normal, a plain language explanation is outputted and distributed to the patient using the computer system. Alternatively, if the medical test result is abnormal, an indication of the abnormal result is provided to a clinician such that the medical test result may be manually delivered to the patient.

In contrast to the invention of claim 21, the Binsted reference is silent with respect to the above-noted features of determining whether a result is appropriate or inappropriate for automated delivery by the computer system and providing the result to the patient in a manner consistent with the determination. Instead, the Binsted reference merely discusses allowing patients to access explanations of medical information in their electronic medical records. As such, Applicants respectfully submit that the Binsted reference fails to teach or suggest multiple limitations of claim 21, as amended herein, including: “a determining component that determines whether the medical test result is a normal test result appropriate for automated delivery to the patient by the computer system or an abnormal test result inappropriate for automated delivery to the patient by the computer system;” “a selecting component that selects a template matching the medical test result if the medical test result is determined to be a normal test result;” “an outputting component that outputs a plain language explanation based on the selected template if the medical test result is determined to be a normal test result and outputs an abnormal indication to a clinician for manual delivery of the medical test result to the patient

if the medical test result is determined to be abnormal;” and “a distribution component that automatically distributes the plain language explanation to the patient if the medical test result is determined to be a normal test result.”

In view of the above, it is respectfully submitted that the Binsted reference fails to teach or suggest all the limitations of independent claim 21. Additionally, there is no apparent reason why one of ordinary skill in the art would have modified Binsted to achieve the invention of claim 21. As such, independent claim 21 is patentable over the Binsted reference, and Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of independent claim 21.

Turning next to independent claim 41, the claim has been amended herein to recite features similar to those discussed above for independent claim 1. For instance, claim 41 has been amended to recite: “prior to interpreting the medical test result to provide a plain language explanation for the medical test result, making a threshold determination whether the medical test result will initially be automatically interpreted by the computer system independent of clinician input or the medical test result will be interpreted using clinician input without an initial automatic interpretation by the computer system.” Accordingly, claim 41 is allowable over the Binsted reference for at least the reasons cited above for claim 1.

Claim 41 has further been amended to recite additional features. For instance, claim 41 has been amended to recite: “determining the type of medical test for the medical test result is a type that may be interpreted using the computer system by comparing the type of medical test for the medical test result to a list of medical test types capable of being interpreted using the computer system;” and “determining that a patient associated with the medical test result is permitted direct access to medical test results by comparing patient information

associated with the medical test result that identifies the patient against a list of patients permitted to receive medical test results.” Applicants respectfully submit that the Binsted reference fails to teach or suggest these further features in conjunction with the other elements of claim 41.

In view of the above, it is respectfully submitted that the Binsted reference fails to teach or suggest all the limitations of independent claim 41. Additionally, there is no apparent reason why one of ordinary skill in the art would have modified Binsted to achieve the invention of claim 41. As such, independent claim 41 is patentable over the Binsted reference, and Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of independent claim 1.

Claims 2-6, 8-9, 11-16, 20, 22-26, 28, 29, 31-33, 35, 36, 40, 42-46, 49, 51-56, and 60 depend from independent claims 1, 21, and 41. Accordingly, these claims are believed to be in condition for allowance for at least the above-cited reasons. As such, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections of claims 2-6, 8-9, 11-16, 20, 22-26, 28, 29, 31-33, 35, 36, 40, 42-46, 49, 51-56, and 60 as well. Dependent claims 2-6, 8-9, 11-16, 20, 22-26, 28, 29, 31-33, 35, 36, 40, 42-46, 49, 51-56, and 60 are believed to be in condition for allowance and such favorable action is respectfully requested.

C. Rejections based on Binsted and Rapaport

Claims 10, 17-19, 30, 37-39, 50, and 57-59 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Binsted reference in view of U.S. Patent No. 5,926,526 to Rapaport et al. (the “Rapaport reference”). Applicants respectfully traverse the obviousness rejection of claims 10, 17-19, 30, 37-39, and 57-59. In particular, claims 10, 17-19, 30, 37-39, and 57-59 depend from independent claims 1, 21, and 41, and, as such, are patentable over the

Binsted reference for at least the reasons cited above. The Rapaport reference fails to cure the deficiencies of Binsted. Accordingly, these claims are believed to be in condition for allowance. As such, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections of claims 10, 17-19, 30, 37-39, and 57-59. Dependent claims 10, 17-19, 30, 37-39, and 57-59 are believed to be in condition for allowance and such favorable action is respectfully requested.

### **CONCLUSION**

For at least the reasons stated above, claims 1-6, 8-26, 28-33, 35-46, 49, and 51-60 are now in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of claims 1-6, 8-26, 28-33, 35-46, 49, and 51-60. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-474-6550 or jgolian@shb.com (such communication via email is herein expressly granted) – to resolve the same. It is believed that no fee is due in conjunction with the present amendment. However, if this belief is in error, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112.

Respectfully submitted,

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